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**Notes:**

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Translated: 23:34:39 JST 08/14/2009

Dictionary Last updated 07/09/2009 / Priority:

**[Document Name]Description**

[Title of the Invention]An emulsifier of an oily ingredient, an emulsification method of an oily ingredient, soup for dilution, and a manufacturing method for the same

**[Claim(s)]**

[Claim 1]the 1st gelatin of the isoelectric points 6.5-9.0, and the 2nd gelatin of the isoelectric points 4.5-5.5 -- 1st gelatin: -- an emulsifier of an oily ingredient included with a wt. ratio of the 2nd gelatin =95:5 - 10:90.

[Claim 2][ the 1st gelatin of the isoelectric points 6.5-9.0, and the 2nd gelatin of the isoelectric points 4.5-5.5 ] The 1st gelatin: An emulsification method of an oily ingredient of setting the pH of solution to it at a value during an isoelectric point of the 1st gelatin and the 2nd gelatin while making solution by which the mixed dissolution was carried out with a wt. ratio of the 2nd gelatin =95:5 - 10:90 carrying out the mixed emulsification of the oily ingredient.

[Claim 3]Are an oily soup ingredient the included soup for dilution, and The 1st gelatin of the isoelectric points 6.5-9.0, the 2nd gelatin of the isoelectric points 4.5-5.5 -- 1st gelatin: -- soup for dilution in which it is added with a wt. ratio of the 2nd gelatin =95:5 - 10:90, pH is a value during an isoelectric point of the 1st gelatin and the 2nd gelatin, and the mixed emulsification

of said oily soup ingredient is carried out into soup.

[Claim 4]The soup for dilution according to claim 3 whose soup for dilution is the soup for dilution for boiled-pork-ribs ramen noodles.

[Claim 5]Are soup for dilution containing an oily soup ingredient the method of manufacturing, and The 1st gelatin of the isoelectric points 6.5-9.0, the 2nd gelatin of the isoelectric points 4.5-5.5 -- 1st gelatin:, while making solution by which the mixed dissolution was carried out with a wt. ratio of the 2nd gelatin =95:5 - 10:90 carry out the mixed emulsification of the oily soup ingredient, [ solution ] A manufacturing method of soup for dilution which sets the pH of solution as a value during an isoelectric point of the 1st gelatin and the 2nd gelatin.

[Detailed Description of the Invention]

[0001]

[Industrial Application]This invention about the emulsifier of oil and fat, the emulsification method of oil and fat, soup for dilution, and a manufacturing method for the same in detail, By manufacturing processes, such as various foodstuffs and cosmetics, etc., concerning the emulsifier of the oily ingredient used, and the emulsification method of an oily ingredient using this emulsifier, [ as a use of the above-mentioned emulsifier ] Soup ingredients, such as meat juices, are included thickly, and extensive manufacture is carried out beforehand, and it is sold or saved at a factory etc., and is related with the method of manufacturing the soup for dilution which dilutes at the time of cooking and is used, and such soup for dilution.

[0002]

[Description of the Prior Art]Conventionally, in manufacturing processes, such as various foodstuffs and cosmetics, there was a case where it was needed to distribute uniformly the oily ingredient contained in raw material in a product, or to make it emulsify stably. For example,

the soup for dilution supplies the half-cooking article mass-produced at the factory to each store, and is widely used by the catering trade of the chain store method which performs final cooking here and completes cooking, manufacture of general-consumers-oriented instant food, etc.

[0003]If the ingredient of the soup for dilution is only an ingredient which melts into water or hot water easily, the target soup will be obtained only by melting and thinning the soup for dilution in water or hot water, but. If the oily ingredient which does not melt into water easily is contained in the ingredient of the soup for dilution, even if it is going to thin in water or hot water and is going to obtain soup, the problem of an oily ingredient separating from soup and solidifying, or becoming the surface [ soup ] and floating in a layer will occur.

[0004]When there is much content of an oily ingredient, it distributes or makes such an oily ingredient emulsify uniformly in soup like the soup for boiled-pork-ribs ramen noodles especially, It had become a serious problem in the case of the soup for dilution for making the soup which assumes peculiar milk white or is taking out characteristic flavor. Then, adding the emulsifier or dispersing agent for making the soup for dilution emulsify or distribute an oily soup ingredient uniformly was considered, and the medicine which consists of synthetic compounds was hard to accept as a food additive, and also had the fault of impairing the flavor of soup.

[0005]Therefore, conventionally, [ as soup for dilution for boiled-pork-ribs ramen noodles ] In soup solution, almost an equivalent amount of gelatin to an oily soup ingredient is added, and when the soup for dilution is thinned and soup is made with the emulsification characteristic of this gelatin, the oily soup ingredient is made to be distributed in soup uniformly. It was thought that it was also rare to impair flavor since there is no problem in the safety as a food additive originally since it is the material obtained from natural materials, such as a bone of a beast and the skin, and gelatin is obtained from the same material as soup.

[0006]

[Problem to be solved by the invention]However, when gelatin was used, the problem that the

capability to emulsify or distribute an oily soup ingredient uniformly will not be enough, and oil will float on the surface of soup into soup had arisen. Since this does not have so high the emulsification capability of gelatin itself, when the oily soup ingredient is contained in the soup for dilution so much, it is because it is difficult to make the whole quantity of this oily soup ingredient emulsify completely. When it thins agitating the soup for dilution in water or hot water and there will be free time by the time it eats soup even if it can make it a certain grade distribute uniformly, the problem of re-dissociating and floating in the surface also has the oily, once dispersed soup ingredient. In the conventional soup for dilution, since oil floated on the surface of soup when several minutes had passed after making soup, for example, while eating ramen noodles etc., oil came up, and, as a result, there was a problem that flavor will worsen.

[0007]If the amount of addition of gelatin is increased, a certain grade can raise the emulsification capability over an oily soup ingredient, but if the amount of addition of gelatin increases not much, a strong smell and taste peculiar to gelatin will be attached to soup, and the new fault of impairing the original flavor of soup will arise. When the amount of addition of gelatin increased and the temperature of soup falls, gelatin gels and the problem that the taste and flavor of soup worsen is also produced.

[0008]Also in the soup for dilution and the various eating-and-drinking articles containing the oily ingredient of not only the soup for dilution for boiled-pork-ribs ramen noodles but others, the above problems are the same. Like bath salts or cosmetics, the use of an emulsifier by which chemical synthesis was carried out from a point of the safety to a human body is not preferred. A delicate scent and smell pose a problem also in the manufacture of various products made an issue of.

[0009]Then, as an emulsifier of an oily ingredient, the technical problem of this invention does not impair that flavor, when it uses for foodstuffs, cosmetics, etc., but there is in the safety to a human body providing the emulsification method of an oily ingredient using a good emulsifier and such an emulsifier while it is excellent in the emulsification operation. In the soup for dilution for making the soup which contains an oily soup ingredient so much like the soup for boiled-pork-ribs ramen noodles, When the soup for dilution is thinned and soup is made, while emulsifying or distributing uniformly [ an oily soup ingredient ] in soup and being able to prevent oil from coming floating on the surface of soup, the original taste or aroma of soup are

not spoiled, either but it is in providing the soup for dilution which can demonstrate good flavor. It is in providing the method of manufacturing such soup for dilution.

[0010]

[Means for solving problem]an emulsifier concerning this invention which solves the above-mentioned technical problem -- the 1st gelatin of the isoelectric points 6.5-9.0, and the 2nd gelatin of the isoelectric points 4.5-5.5 -- 1st gelatin: -- it contains with a wt. ratio of the 2nd gelatin =95:5 - 10:90. Gelatin is mainly divided roughly into acid treatment gelatin and alkali treatment gelatin by difference in a disposal method for materials, although extraction manufacture is carried out from these materials by using a bone, the skin, etc. of a beast as materials. Acid treatment gelatin is the gelatin produced by performing extraction after processing gelatin materials from acid, and alkali treatment gelatin is the gelatin produced by performing extraction, after processing gelatin materials with alkali. If disposal methods differ, a difference will arise also at an isoelectric point of obtained gelatin. In this invention, a thing of the range of the isoelectric points 8.0-9.0 is used more preferably, using gelatin of the isoelectric points 6.5-9.0 as the 1st gelatin. A thing of the range of the isoelectric point 5.0\*\*0.3 is used more preferably, using gelatin of the isoelectric points 4.5-5.5 as the 2nd gelatin. As the 1st gelatin, acid treatment gelatin is used and alkali treatment gelatin is usually used as the 2nd gelatin. a use rate of the 1st gelatin and the 2nd gelatin is a wt. ratio -- 1st gelatin: -- although the 2nd gelatin =95:5 - 10:90 are preferred and change also with uses, a result in which about 70:30 are especially good is obtained. There are solid products, such as powder or tabular, and a product of the shape of gel of solution in gelatin, and any can also be used.

[0011]Various oil and fat are used, for example, mineral oil, paraffine, lanolin, cottonseed cake oil, palm oil, olive oil, beef tallow, lard, soybean oil, vegetable oil, corn oil, sesame oil, etc. are mentioned by the kind or use of a product which manufactures an oily ingredient. If churning mixture of this gelatin solution and the material containing an oily ingredient is carried out after dissolving solution of gelatin, or solid gelatin in water or hot water, the mixed emulsification of an oily ingredient and the gelatin will be carried out good. As for the gelatin concentration of a gelatin solution, it is preferred to carry out to 5 to 30weight %. Powdered gelatin can be directly supplied to the solution of the material containing an oily ingredient, and can be agitated, and mixed emulsification can be carried out simultaneously with the dissolution. On the contrary, a powdered or oily material which contains an oily ingredient in gelatin solution may be supplied.

It is preferred to fully carry out churning mixture so that the mixed emulsification of gelatin and the oily ingredient may be carried out uniformly. The addition rate to the oily ingredient which the 1st and 2nd gelatin makes emulsify should just have the amount only of gelatin by which the whole quantity of an oily ingredient is emulsified uniformly, and even if there is too much gelatin, a bad influence may come out of it to the quality of a product while the effect beyond it does not go up. Specifically, it is preferred to add the gelatin (total quantity of the 1st and 2nd ZECHIRAN) of  $1/3 - 1/40$  of an oily ingredient (weight ratio).

[0012]It is made for pH of this mixed material to become a value between the isoelectric point of the 1st gelatin, and the isoelectric point of the 2nd gelatin in the stage which mixed the material containing the 1st gelatin and 2nd gelatin, and oily ingredient. The coacervation which it will mention later if this pH value approaches the isoelectric point of the 1st gelatin or the 2nd gelatin too much not much becomes difficult to happen, and emulsification uniform [ an oily ingredient ] and stable cannot be performed. However, the gelatin generally used has the distribution with a constant isoelectric point, and especially acid treatment gelatin has comparatively large distribution of an isoelectric point. Therefore, what is necessary is just to set to the pH range [ it separated to some extent from both isoelectric points ] of between in fact to the value of the average or central isoelectric point of the 1st and 2nd gelatin. What is necessary is just to make it pH of product material set to 5.3-7.0, when the gelatin of the above mentioned pH range is specifically used. Preferably, pH  $5.8 \pm 0.3$  is used.

[0013]pH value of a mixed material is decided by combination of the ingredient of others of the material containing the 1st and 2nd quality and amount used, and oily ingredients of gelatin. Performing selection combination of the 1st and 2nd gelatin suitably can also set pH of an obtained mixed material as said range. What is necessary is to add a suitable pH adjuster and just to perform pH control, when pH of an obtained mixed material has separated from said range. As a pH adjuster, the various pH adjusters used in the manufacture field of the usual foodstuffs or chemicals can be used. As for a thing desirable as a pH adjuster, sodium hydroxide, acetic acid, chloride, citrate, acetic acid sodium, a potassium hydrate, etc. are mentioned, for example. The stage which carried out the mixed dissolution of the 1st and 2nd gelatin at water, and made gelatin solution may be sufficient as the time to add a pH adjuster, and it may be after mixing gelatin solution and the product material containing an oily ingredient.

[0014]As a concrete use of the emulsifier concerning this invention, there is soup for dilution used for boiled-pork-ribs ramen noodles. As long as what is called a soup ingredient produced by the soup for dilution boiling a vegetable material and others, such as animal materials, such as various kinds of meat and a bone, and a sweet herb, with water is included at high concentration, the raw material and fundamental manufacturing method may be the same as that of the case of the usual soup for dilution. However, this invention is preferably applied to what contains many oily soup ingredients which do not melt into water easily as an ingredient of the soup for dilution. Soup for dilution is made powdered by the case where it is provided by solution and the gel state, spray drying, etc., and may be provided.

[0015]As the 1st and 2nd gelatin, when using it for foodstuffs, it is preferred to take into consideration and choose safety, flavor, taste, etc. over a human body. for example, -- the case of the soup for dilution for boiled-pork-ribs ramen noodles -- the use rate of two kinds of said gelatin -- a wt. ratio -- 1st gelatin: -- the -- it is preferred especially to set it as about gelatin =80:20-40:60 of two. If viscosity of the gelatin used for the soup for dilution is carried out more than 35mp (JIS-K6503), emulsification will be performed good.

[0016]Without adding a special seasoning and additive agent, when using it for business use, the soup for dilution produced by performing it above remains as it is, it is packed, and it is sold or kept, and it is used for it for a required seasoning etc. in the stage which thinned the soup for dilution with water or hot water, and made soup at the time of cooking, adding. When it attaches to instant food or sells to home use, it can also supply, where a seasoning required for the soup for dilution is added beforehand.

[0017]The soup for dilution concerning this invention is applicable to the soup for dilution used as the soup used for arbitrary dishes besides the soup of noodles dishes, such as ramen noodles, or another broth and fluid material. Therefore, in this Description, it is used with soup in a meaning called not only a narrow meaning called the soup for a noodles dish but the arbitrary mixed materials used for cooking. However, especially as soup for dilution concerning this invention, this oily soup ingredient is preferably applied to the soup for dilution for soup which needs to be uniformly emulsified or distributed in soup, including an oily soup ingredient mostly. Specifically, the soup which has opaque appearance, such as milk white, is preferred like the above mentioned soup for boiled-pork-ribs ramen noodles.

[0018]The emulsifier concerning this invention makes cooking oil emulsify, can manufacture yogurt-like emulsified drink or can be used for the milky jelly for desserts, and processing eating-and-drinking articles, such as coffee cream. Use the thing which made the oily ingredient emulsify with the emulsifier concerning this invention as bath salts for baths, or, [ as an oily ingredient ] It can use freely making water emulsify medicine, such as poorly soluble oil and fats, spice, and vitamin, and using for cosmetics, such as cream for cosmetics, an object for the hairs or a medicine for a shampoo, a medicine for washing its face, and packs for makeup, etc. for the product which demonstrates various kinds of functions by making an oily ingredient emulsify.

[0019]

[Function][ pH of a mixed material obtained by using together the 1st and 2nd gelatin that has a difference at an isoelectric point which was described above ] [ by making it become a value during the isoelectric point of the 1st and 2nd gelatin ] The oily ingredient in product material emulsifies very good, and, moreover, this emulsified state is very stable.

[0020]The solution which carried out the mixed dissolution of two kinds of gelatin from which an isoelectric point differs is made into pH range during both isoelectric point. And when the oily ingredient exists in this solution, mixed emulsification is carried out with gelatin, and an oily ingredient uses a grain with an oily minute ingredient as a core, and it, [ among two kinds of gelatin ] What is called a coacervation reaction occurs, the perimeter of an oily ingredient will be covered by the coacervate thin film of gelatin, and what is called micro coacervate will be formed. The state where it emulsified in solution has the uniform and very stable micro coacervate which consists of this oily ingredient and gelatin, and even if it carries out time neglect, the long thing for which only oily ingredients re-gather or make the layer of an oily ingredient on the surface of product solution does not break out.

[0021]And emulsification of the oily ingredient by the coacervation of the above-mentioned gelatin is performed very efficiently, and can make a lot of oily ingredients emulsify that it is good and stably by using a little gelatin.



[0022]

[Working example]- 4 g of alkali treatment gelatin (viscosity 44mp) of the isoelectric point 5.0 was used as the 2nd gelatin, using 4 g of acid treatment gelatin (viscosity 40mp) of the isoelectric point 8.5 as the embodiment 1-1st gelatin. 32 ml of water was swollen, and both gelatin was warmed and dissolved in 60 \*\*. This gelatin solution serves as an emulsifier. As a material of the soup for dilution, the soup undiluted solution for dilution for boiled-pork-ribs ramen noodles manufactured by the usual state method was used. Gelatin as an emulsifier like before and other emulsifiers are not contained in this soup undiluted solution for dilution at all. 50 ml of soup undiluted solutions for dilution were added to said gelatin solution, and churning mixture was fully carried out. The mixed emulsification of the soup undiluted solution for dilution containing an oily ingredient was uniformly carried out with gelatin. Thus, since pH value of the obtained soup for dilution was 5.6 and it was predetermined pH within the limits, pH control was not performed.

[0023]The soup 1.2g for dilution produced by performing it above was thinned in 200 ml of 50 \*\* hot water, and soup for boiled-pork-ribs ramen noodles was made. even if obtained soup for boiled-pork-ribs ramen noodles assumes characteristic milk white and it neglects it for 1 hour or more -- oil -- coming floating -- it did not accept. When soup was eaten, a taste and aroma were good. When soup was observed under a microscope, a coacervate particle of gelatin which wrapped in an oily ingredient has been checked.

[0024]Next, in the above-mentioned embodiment, the mixing ratio of acid treatment gelatin and alkali treatment gelatin was changed, soup for dilution was manufactured in same procedure, and the performance was evaluated. The result is shown in Table 1. A numerical unit in front was weight %, and the valuation basis was as follows. O -- They are very good and O. -- Good, x -- Performance comparison by the mixing ratio of poor table 1. gelatin. -----  
----- The 1st gelatin (alkali treatment gelatin) The 2nd gelatin (acid treatment gelatin)  
Criticism Value. ----- The comparative example 1.1 100 0 x embodiment  
1.1. 95 5 O embodiment 1.2 90 10 O embodiment 1.3. 80 20 O embodiment 1.4 70 30 O  
embodiment 1.5 60 40 O embodiment 1.6 50 50 O embodiment 1.7 40 60 O embodiment 1.8  
30 70 O embodiment 1.9 20 80 O embodiment 1.10 10 The 90 \*\* comparative example 1.2 0  
100 x. In the case of soup for dilution of boiled-pork-ribs ramen noodles, the -----

----- above-mentioned examination shows that it is necessary to set the mixing ratio of the 1st gelatin and the 2nd gelatin to 95:5-10:90. Performance which excelled in 80:20-40:60 in the mixing ratio can be demonstrated. When the mixing ratio was about 70:30, it also turned out that the best result is obtained.

[0025]- Embodiment 2 - In said Embodiment 1, 32 ml of water was made to carry out the swelling dissolution of 6 g of acid treatment gelatin, and 2 g of the alkali treatment gelatin, and the soup for dilution was manufactured in the same procedure as Embodiment 1 except having used 50 ml of soup undiluted solutions for dilution. pH value of the obtained soup for dilution was 5.6. To said the appearance, the soup for boiled-pork-ribs ramen noodles was made from the soup for dilution, and the performance was evaluated to it. The result was good.

[0026]- Embodiment 3 - In this embodiment, acid treatment gelatin and alkali treatment gelatin used the mixed gelatin which it is at the manufacture time and is mixed. In order to manufacture mixed gelatin, [ materials / gelatin ] [ each gelatin solution processed and extracted according to each process of acid treatment and alkali treatment ] After mixing at a predetermined rate, the mixed gelatin with which two kinds of gelatin was mixed uniformly is obtained by drying this in accordance with a usual state method. The gelatin solution was the same as the gelatin solution used when manufacturing the same acid treatment gelatin as said Embodiment 1, and alkali treatment gelatin. The mixing ratio of acid treatment gelatin and alkali treatment gelatin was 3:1 like Embodiment 2. The soup for dilution was manufactured in the same procedure as Embodiment 2 using 8 g of this mixed gelatin. pH value of the obtained soup for dilution was 5.6. To said the appearance, the soup for boiled-pork-ribs ramen noodles was made from the soup for dilution, and the performance was evaluated to it. The result was good.

[0027]- In the embodiment 4-embodiment 2, 5.3g (isoelectric point 8.0) of acid treatment gelatin with another Embodiment 2 and 2.7 g (isoelectric point 4.9) of alkali treatment gelatin were used. in this case, 1st gelatin: -- the -- it is set to gelatin =66:34 of two. When 32 ml of water was made to carry out the swelling dissolution like Embodiment 2, pH value of solution was 4.6. Then, pH value of solution was adjusted to 6.0, using 5% sodium hydroxide solution as a pH adjuster. Then, the soup for dilution was manufactured in the same procedure as Embodiment 2. pH value of the obtained soup for dilution was 6.0. To said the appearance, the soup for boiled-pork-ribs ramen noodles was made from the soup for dilution, and the

performance was evaluated to it. The result was good.

[0028] In the above-mentioned embodiment, the kind and the amount of addition of the pH adjuster were changed, that from which pH value of the soup for dilution differs variously was manufactured, and the performance was evaluated to said the appearance. The evaluation result is shown in Table 2. The valuation basis is the same as that of the case of said table 1. Table 2. Difference in performance by pH. ----- pH value Criticism Value -----  
 . Comparative example 4.1 4.0 x comparative example 4.2 5.0 x embodiment 4.1 5.5 O  
 embodiment 4.2 6.0 O embodiment 4.3 6.5 O comparative example 4.3 7.0 x. The -----  
 above-mentioned examination shows that it is necessary to set up pH value of the soup for dilution between the isoelectric points of the 1st gelatin and the 2nd gelatin. The pH 6.0 neighborhood also understands that it is a desirable range.

[0029]- In an embodiment 5-embodiment 4, pH control was not performed to gelatin solution, but it carried out to soup for dilution produced by mixing a soup undiluted solution for dilution, and gelatin solution. pH value of soup for dilution after pH control was 6.0. Like Embodiment 4, when the performance of soup for dilution was evaluated, it was good.

[0030]- An embodiment 6-emulsifier was used for manufacture of various kinds of eating-and-drinking articles. [Emulsified drink] An emulsifier, i.e., gelatin solution, prepared on the same conditions as Embodiment 1 was used. Gelatin solution was made to carry out the mixed emulsification of the cooking oil 50g uniformly. pH was adjusted to 6.0 and a material for emulsified drink was obtained. 1 g of this material was dissolved in 200-ml \*\*\*\*, sugars and spice are added, emulsification stability was carried out, and emulsified drink was obtained. This emulsified drink was also able to be drunk as hot emulsified drink in the state of high temperature, and was able to be deliciously tasted also as a yogurt-like milk beverage by cooling at about 10 \*\*. An oily ingredient did not dissociate in the state of any. [Milky jelly] In the same gelatin solution as the above, the mixed emulsification of the cooking oil 20g and the spice 0.1g was carried out uniformly, pH was adjusted to 6.0, and a jelly material was obtained. As a result of dissolving 25 g of this jelly material in 100 ml of warm water and cooling at about 5 \*\*, milky jelly for desserts was obtained. This milky jelly has good texture without usual milk jelly and a change. [Coffee cream] In the same gelatin solution as the above, the mixed emulsification of the edible fat and oil 30g was carried out uniformly, the pH to 5.6 was adjusted, and an emulsification material for coffee cream was obtained. It adds to

hot coffee, and churning mixture is improved and 1 g of this material is made to emulsify. As a result, a drink of the shape of an acquired cafe au lait was mellow, and its flavor was also better than what used conventional milk and cream.

[0031]- Embodiment 7 - The bath salts and the milky lotion for makeup which can enjoy muddiness hot water were manufactured in the bath for home use etc. [Bath salts] The isoelectric point 5.0 and 4 g of alkali treatment gelatin of viscosity 44mp were used as the 2nd gelatin, using the isoelectric point 8.5 and 4 g of acid treatment gelatin of viscosity 40mp as the 1st gelatin. 32 ml of water was made to carry out the swelling dissolution of both gelatin. The obtained gelatin solution was seasoned with 2 ml of oily mixture spice with 50 ml of high oil squalane of warmth retaining property as an oily ingredient, and churning mixture was fully carried out. Homogenized an oily ingredient and gelatin solution, it was made to emulsify uniformly, and the emulsification material A was obtained. pH value of this emulsification material A was 4.8. pH value of the above-mentioned emulsification material A was adjusted the pH to 5.6 with sodium hydroxide 5%, and bath salts were obtained.

[0032]After thinning the obtained bath salts in 200 ml of hot water (20 g and 30 \*\*), the bathtub which crawled on 300 l. of hot water at 42 \*\* was made to distribute the obtained solution. While the hot water of the bathtub became cloudy with the sufficient degree, becoming muddy and presenting the shape of hot water, the desirable scent hung over. An oily ingredient did not come floating on the surface of hot water. When the liquid extracted from the hot water of a bathtub was observed under the microscope, the coacervate microcapsule of the gelatin containing said oily ingredient has been checked. When a bath was actually taken, skin carried out gently, there was no feeling of an umbrella umbrella like \*\*\*\*\*, and the skin after after bath was in the desirable state, as face toilet was rubbed in.

[0033]When said bath salts 20g were directly thrown into hot water of 42 \*\*300 l. and it was made to distribute, a good result was obtained like the above. When producing the above-mentioned bath salts commercially, it is preferred to add various kinds of additive agents used for the usual bath salts, such as an antiseptic, if needed. [A milky lotion] Said emulsification material A (pH 4.8) was adjusted the pH to 5.8 with sodium hydroxide solution 5%, and a material for milky lotions was obtained. As a result of diluting 10 g of this material for milky lotions in hot water of 35 \*\*100 ml, a milky lotion for makeup was obtained. When this milky lotion for makeup was attached to a face or hand and foot or was used for washing, skin

became pliant and it was checked that a feeling of an umbrella umbrella is stopped.

[0034]

[Effect of the Invention]Since according to the emulsifier of an oily ingredient and the emulsification method of an oily ingredient concerning this invention which were explained above gelatin is used as materials while being able to make an oily ingredient emulsify uniformly and stably, safety when it uses for foodstuffs, cosmetics, etc. is very high. Since there is little amount of the emulsifier, i.e., the gelatin, used to an oily ingredient and it ends, neither the flavor of foodstuffs nor the scent of cosmetics etc. is spoiled.

[0035]When it can save in the state where the oily soup ingredient contained in the soup for dilution was made to emulsify uniformly and stably when it used for the soup for dilution especially, the soup for dilution is thinned and soup is made, Since it excels in the emulsification stability by coacervate, the good soup which oil dissociates and does not come floating on the surface of soup is obtained. Especially gelatin consists of natural material, and since the safety to a human body is very high, it can be used in comfort. [ and the thing for which two kinds of gelatin is used together and the coacervation of gelatin is used ] as a result of the emulsification capability of an oily soup ingredient is markedly alike and improving, compared with the conventional method only using one kind of gelatin, the amount of the gelatin used is sharply reducible, and it becomes like before, without impairing the original flavor of soup by a lot of gelatin addition.

[0036]If it uses for bath salts, a feeling of wet smooth use according comparatively little oily ingredients to the uniform and oily ingredient in which it is difficult to be stabilized, and to obtain in the conventional bath salts since it can be made to distribute will be obtained in a lot of hot water. In addition, it also becomes possible to use for the new function which was not able to be used in the conventional emulsifier, or a use.

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[Translation done.]